

- 17 -  
CLAIMS

*soft* > 1. A method for data management in an analytical laboratory, comprising the steps of:

- 5     ◦ providing a plurality of containers for the laboratory analysis of biological specimens, each container being associated with its own identification code;
- 10    ◦ associating a patient code with a patient to be subjected to analysis;
- for each container used for said patient, generating in a data processing system a combination of said patient code and said identification code of the corresponding container;
- 15    ◦ carrying out, by means of at least one analyzer, at least one analysis on the container or containers used for said patient, the analyzer entering the results of said analysis, combined with the identification code of the container or containers, into the data processing system.

15    2. The method according to Claim 1, comprising the steps of:

- 15    ◦ generating a patient code for at least one patient on whom at least one analysis is to be carried out and storing said patient code in a data processing system;
- 20    ◦ placing a biological specimen from said patient in said at least one container;
- carrying out at least one analysis of said specimen in at least one analyzer, the analyzer reading the identification code of said container and entering into said data processing system the results of the analysis combined with the identification code of said container;
- 25    ◦ using said data processing system to associate the results of the analysis or analyses with the patient code, and then with the patient identified by said patient code, by means of the combination of the patient code with the identification code.

30    3. The method according to Claim 1 or 2, in which said identification code is placed on the corresponding container in a machine-readable format.

4. The method according to Claim 1, 2 or 3, in which said

- 18 -

identification code is placed on the corresponding container at the time of the production or packaging of the container.

5. The method according to Claim 1, 2, 3 or 4, in which said patient code is placed on a medium in a machine-readable format.

5 6. The method according to Claims 3 and 5 at least, in which the combination of the patient code with the identification code is generated by the sequential reading by an automatic reading instrument of the patient code and the identification code, or vice versa.

10 7. The method according to one or more of Claims 1 to 6, in which said patient code and said identification code are reproduced as bar codes and are optically read to produce said combination.

15 8. The method according to one or more of Claims 1 to 7, in which said patient code is generated by a central computer of said data processing system; the combination of the patient code with the identification code is carried out by means of a unit of said data processing system other than said central computer; and the result of the analysis, associated with the patient code, is sent to said central computer.

20 9. The method according to one or more of Claims 1 to 7, in which said patient code is generated by a central computer of said data processing system; the combination of the patient code with the identification code is carried out by means of a unit of said data processing system other than said central computer; and the result of the analysis, associated with the identification code of the containers, is sent to said central computer, the central computer being programmed to associate with the result of the 25 analysis the data relating to the patient to whom said result relates.

10. A data processing system for data management in an analytical laboratory, comprising, in combination,

- a central electronic computer, for acquiring the data on patients on whose biological specimens the analyses are to be carried out, and for generating 30 a patient code for each patient acquired;
- means for acquiring an identification code associated with each container of a plurality of containers for laboratory analysis of biological specimens;

- 19 -

- means for combining each of said acquired identification codes with a corresponding patient code;
- at least one analyzer with means for reading identification codes associated with the containers which are placed in it, said analyzer carrying out at least one analysis on a biological specimen contained in the containers placed in it and supplying to said electronic computer the result of the analyses carried out, combined with data capable of associating said result with the patient to whom the biological specimen belongs.

5 11. The system according to Claim 10, comprising means for receiving from said at least one analyzer the result of said at least one analysis combined with the identification code of the container in which the analyzed biological specimen is placed, said means being programmed to associate said result with the patient code relating to the identification code combined with the result of the analysis, to send the result of the analysis 15 combined with the patient code to said central electronic computer.

10 12. The system according to Claim 10, in which the result of the analysis, combined with the identification code of the corresponding container, is sent to said central computer, the central computer being programmed to associate, by means of the combination of the patient code with the 20 identification code, each identification code - and consequently the result of the analysis - with the patient code of the patient whose biological specimen is contained in the container identified by said identification code.

13. A container for laboratory analysis of biological specimens, characterized in that it is provided with a unique machine-readable 25 identification code.

14. The container according to Claim 13, characterized in that said identification code is applied to said container during the production of the container.

15. The container according to Claim 13 or 14, characterized in that 30 said identification code is a bar code.

16. The container according to Claim 13, 14 or 15, characterized in that it includes means for determining an expiry date.

- 20 -

17. A set of containers for laboratory analysis of biological specimens, characterized in that each of said containers has a unique identification code which is different from the identification codes of the other containers of said set and is machine-readable.

5 18. The set of containers according to Claim 17, characterized in that said identification code is applied to said containers during the production of the containers.

19. The set of containers according to Claim 17 or 18, characterized in that said identification code is a bar code.

10 20. The set of containers according to Claim 17, 18 or 19, characterized in that each container is provided with means for determining an expiry date.